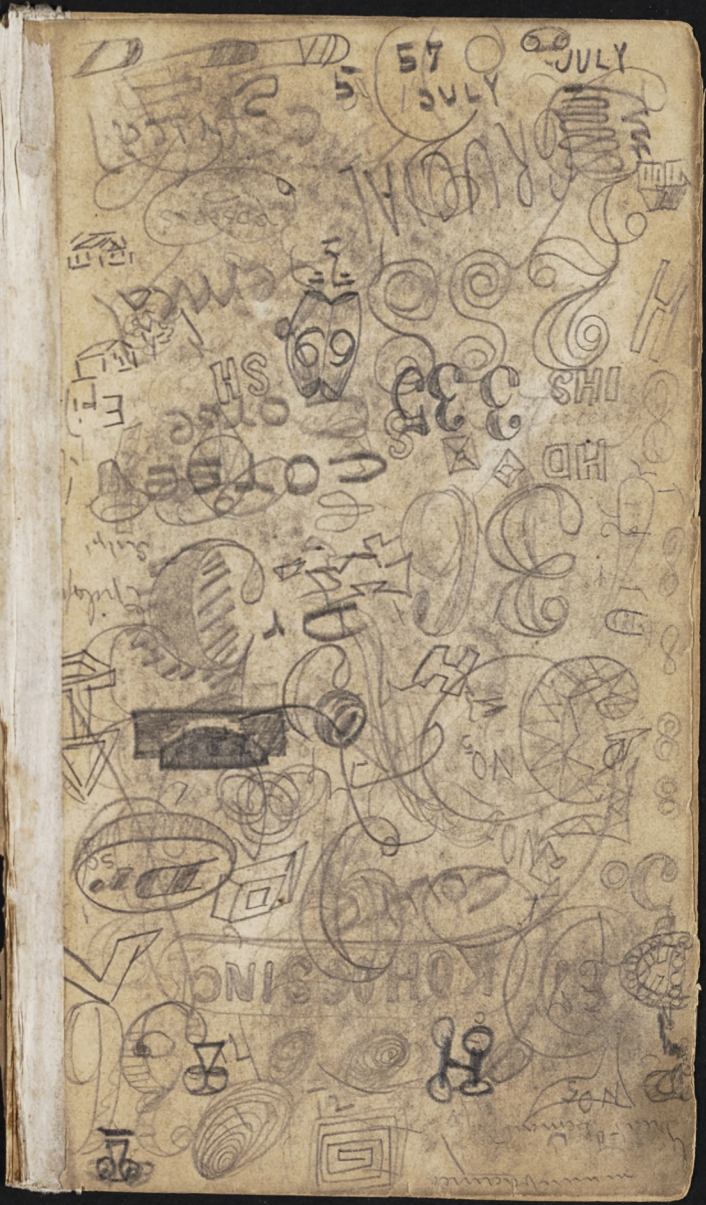
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Class 10a *No.* 267

Presented by

J. Solis Cohen, M.D.

DEC 8 - 1921

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Jackson found in several
cancer nerves near the neck of the
clerus, small, narrow & pointed
more lip than only finger —

under the influence of the Sympathetic
nerve the nutrition of the Glandules
the Secretion becomes a part of
structure & therefore identical
the nutrition. Whenever is needed
Spinal Nerves excite the Capillary
circulation water is produced & se-
cretion is poured out into duct &
as it goes — water is formed
the Gland escapes through the
& washes out the material
mixed with it —

Salivary Secretion is excited by the
physical properties of bodies independent of their
ical qualities. Bernard supposes the Lingual
nerve fluids to be distinct - The Sub-
gual glands connected with depurative
the Submaxillary with taste &c

During mastication all these fluids come out + in many animals openly & commingled Ptyaline is somewhat obscure. It does not exist in the fluid after Parotid + Submaxillary It has not been determined whether it exists in the Sublingual gland. The mixed fluid Constituting the Saliva Contains ptyalin 1/400 part of Ptyaline will Convert Starch into Glucose - Parotid fluid Contains very large pearlin Scales, Corpuscles oils + Globulin Differs a thin fluid with 2 parts in 1000 of organic matter - Alkaline reaction, no taste or odor - Is intimately Connected with mastication - In Some animals mastication is Carried mostly on one Side of the mouth at a time in Horse + ass - 800 drachms has been Collected in 15 minutes on one Side masticated + 150 drachms in Same time - The secretion is Suspended when food is not taken. Submaxillary fluid is more viscid Sp gr 1- Contains mucus + pri ous + organic matter + Lithates Hyalin are 3 parts in 1000 albumin 1 to 15 parts

In Vaginitis you have Sores and mucus + then putrid discharges - Ulceration is a rare Circumstance. There is an albuminous deposit in the follicles Supposed to be ulcerating. This may be thrown out + yet no ulceration - There may be ulcers + fungus growths. Treatment mucus injections in the Vagina - In chronic Cases Cool injections and pretty astringent washes of all kinds -
Pure Vaginitis always gets well. It may arise from Pessaries - Stricture may occur from partial or Complete thickening of the walls of the Vagina. Use the Vaginal instrument. A steel sound may be employed to dilate the stricture in preference to the Conical bougie -
The tissues should be dilated + the tissues avoided as much as possible. A good dilater is the pessary. the ring pessary occupying the Vagina but not to fill it. Fungus ulcers are to be treated with astringent washes as other ulcers

Sublingual fluid is the most viscid
May have more chemical influence -
the amount of fluid secreted is very small
Thirst is produced by a deficiency of water
in the blood & not from dryness of
the throat. The Salivary fluids have
an elective action on fluids thrown
into the blood - No salt of iron
escapes by the Salivary fluid: but
Iodide of iron will be found in it.
Other Substances are ultimately
eliminated by the kidneys 
when secretion is required - there is a
rush of blood through the vessels -
& then they get the water. The
organic principle comes from the
gland itself & not from the blood -
Salivary fluids assist mastication
In the upper extremity necessary before
passage of food down the oesophagus
the stomach seems to have some
important influence governing
it when the stomach is full -

Dr Parkes mentions a Case in which this morbidly occured in a young female & continued 10 years—
Spontaneous Salivation occurs also deficiency of Salivation is occasionally met with—
Some cases of dyspepsia occur from defficient digestion owing to want of Salivary fluid & may be relieved by Spirit Sugar & ~~hands~~ water & sipping, the Saliva Empty 10 minutes during digestion—
In Some Cases of analgia and hydrophobia the Stomach is found filled with a black vomit the Same as in Yellow Fever—
Pepsin is the organic principle of the Gastric juice. It can be Separated from the gastric fluid— Digestion of animal food is not all got through with in the Stomach but a good deal is performed in the Stomach—

Fungus growths are to be removed, if small by Caustics, if large by ligature. they may be treated by pressure, by ball or plain Cannula pessary
Gangrene & Sphacelus is to be treated as elsewhere.

Endometritis is inflammation of the mucous membrane of Uterus body & neck. The orifice & even the External extremity may be included It may arise from the general causes of inflammatory action. It is generally found at the orifice, but travels higher up. Fever may be Metastasis may produce irritation of the Uterus or of the Stomach &c. The patient is often debilitated. They generally arise from local causes - Abortion, difficult labor, instrumental labor &c &c. Any mechanical irritation, all pessaries in which the neck of the Uterus presses on the instrument from Continual friction at the orifice

Uterine displacements of the uterus may be said to cause inflammation
Cervix undue closeness os internal inflations &c - It may be confined to cervix or extend up the neck. Sounds bougies &c may be passed up - The Symptoms are local, sometimes general - They are subject to the same laws as other inflammations -
In acute forms there may be chill fever & sympathetic Symptoms -
If complicated with irritable uterus there will be signs of Spinal & Cerebral irritation - There is pain in back weight, dullness dyspnea &c & examination per vaginum will test if it be inflammation or irritability of the uterus - If the lining membrane is inflamed it will be excited from the turgescence of the membrane & mucus observed in Chronic Cases - It exists in many cases after the inflammation has subsided -

there may be purulent discharges
& they are watery & attended sometimes
in inflammation of the mucous membrane
of the uterus. Examination is made
by means of a Speculum - You can
only see that portion of the neck not
covered by the vagina - The mucous
membrane is preternaturally red
pale tumid, orifice either dilated
or small, & the discharge may be
sometimes seen coming from the orifice
The consequences are the same as
in other inflammations. Here maybe
thickening of the mucous membrane
alterations in the appearance of the
mucous membrane of the orifice of the
uterus, & this may be raised. When
Chronic, there is an alteration of tissue
a development of papillae putting
on the appearance of granulations & of
ulceration, but it is not ulceration -
In some cases there will be ulceration
They are exceedingly rare except

specific ulcerations — There may be
fungous growth from no ulceration
sometimes purulent & specific, sometimes
but rarely of healthy inflammation
mortification is very rare —
In the neck there is rarely ulceration.
The inflammation may not be confined
to the mucous membrane. There may be
permanent contraction after the subsidence
of the inflammation. These
Stictures may cause dysmenorrhoea
The stricture may also be perfect &
completely closed the Cavity —
There may then be accumulations
of liquids in the Cavity. Pus, serous
mucus & menstrual matter. These
cases are called Hydrometra. It is a
very rare Circumstance. The fluids
accumulate in the Cavity. The uterus
enlarges & pregnancy is suspected
& by pressure the fluctuation may
be observed. Pus may collect in
the Cavity of the uterus & may

accumulate. It is so rare that its occurrence is denied by many physicians. Gas may be formed in the tissues without decomposition & in the cavity of the peritoneum in emphysematous abscess. Occasionally there is expulsion of fecal matter from the uterus & vagina. Occasionally there is exudation of coagulable lymph on the serous membrane but it is a very rare occurrence.

The treatment. Cups & leeches locally & below inside of thighs hypodermatic use, fomentations & proper injections alterative internal medicines &c. In chronic cases the treatment is local. The inflammation is kept up by friction of the neck of the uterus against its walls the vagina. Pessaries will relieve this condition

Powerful Caustics must not be employed in simple granular inflammation of the Os. Uteri ✱ Inflammation of a chronic character is kept up by friction of the neck & os uteri against the posterior part of the bladder & the uterus is to be relieved & kept still by means of the ring pessary. In cases of stricture & simply dilating probes & avoid all cutting instruments as long as possible. Also in cases of Hydrometra & Pyometra. Tapping. The only plan of treatment is to remove all external sources of irritation about the uterus. Local applications are sometimes necessary. Injections of water astringent solutions &c if necessary sometimes stronger solutions. Also the injection of probes in the cavity. Large quantities of fluids are to be thrown into the vagina for purposes of ablution & specially when pessaries are employed.

According to Dr Dallin 16 pints of Gastric fluid to digest 1 pound of flesh — The quantity secreted is very large but varies, There is never found in the Stomach more than 2 or 3 oz at a time yet the digesting matter does not remain in the Stomach during the whole process — It is never a simple fluid. Is Composed of water 994 — pepsin 3 organic matter 2 Inorganic matter & acid 1/57 — The acid is necessary to the Solvent power

Pancreatin is a ferment from the pancreatic gland which may be obtained from the gland itself. Is thick & viscid very Coagulable, putrefies at 120° — also in a Running stream. The gland is easily irritated & a tube is introduced in the duct of the gland & a dog

In making Caustic & Similar applications to the neck of the uterus a Camel pointed Caustic is preferable to the straight kind —

Metritis is an inflammation of the tissues between the mucous membrane & the peritoneum, the substance of the uterus. It is a rare affection & when it does occur it is in the puerperal state. The symptoms form of puerperal fever is puerperal peritonitis — Metritis of the womb is most frequently met with — There maybe rheumatic metritis. The diagnosis is confirmed by vaginal Examination. Pain is usually more on one side than another. The os uteri is turgid & red — May terminate by resolution. There may be effusion of coagulable lymph, thickening & induration of the uterus. The ovary may be permanently enlarged & the

must be distinguished from hypertrophy - This may skip an irritable uterus - If there is an abscess it is in the areolar tissue about the uterus not in the organ itself - In true irritation there may be gangrene & sphacelus - The treatment is locally - If there should be a free secretion from the parts it is safer to be encouraged than otherwise - If sufficiently medical remedies to get rid of the induration a great confidence is to be placed in the efforts of nature - An alteration tonic may be in some cases advantageous - The introduction of a pessary favors the removal of indurations

The food of animals is generally organized matter which have been more or less vitalized – Nitrogenized food affords the plastic material – A large proportion is manufactured its use is to generate heat to set up & maintain chemical action necessary for the process of nutrition – There are chemical ingredients essential but not absolutely necessary to the maintainance of nutrition – There are lime & salt &c. in the absence of which there is a kind of inanition interfering with the perfection of the being – That albuminous or nitrogenized food is very small in proportion to the rest taken in – That Carbon Carnivora in the 24 hours to keep up the Calorification occurring for the body in a man of good health normal size & weight 12 to 14 oz –

Some animals have neither mouth intestines & anus & they have the simplest form of digestion. The first process is the liquefaction of the solid material

+ the food is fitted by a peculiar change in its molecular Construction to be assimilated by the blood - One part of Salivin will transform 2000 parts of Starch into dextrin + glucose. With perfectly pure Starch this Can take place in the mouth.
Human Saliva possesses the transforming power in a greater degree than that of other animals - Acid to a certain extent will prevent this action of the Salivary fluid -
Bernard says the Gastric juice Can only digest the gelatinous tissue of muscle + in the Duodenum the real digestion of all the Albuminous bodies Come into play + the muscular fibres disappear — Paul Bessard says that the ~~Bile~~ + pancreatic juice are much alike but pancreatin is more active than the pepsin the 1st will digest in any fluid + pepsin acquires an acid -
He says Gastric juice attacks the muscular fibre but they are not all fully dissolved This is because some

take too much food must dram the Gastric juice Can digest + the balance of digestion must go on in the Canal. the soap Gastric juice in the duodenum precipitates the bile - Pepsin + pancreatin annihilate one another + it is necessary that pepsin should not enter the Canal + pancreatin attacks the fibres not attacked in the stomach -


Dies Out
force
Forever
Root
Consequence of
$10
Hubcap

Use of Sugar in the Economy

This occurs in the very first developement of the structures - The first developement of everything is a cell & does not occur in the absence of sugar. Saccharine matter is the great supporter of fermentation & maintains the molecular movements on which the developement of organic matter is dependant. All those substances that arrest fermentation out of the body, suspend molecular action when taken in the body - It increases the density of the fluids & prevents a transudation of water into the organs -

Fatty Matters

Fatty Matters are soluble in Ether highly inflammable, yielding pure carbon from the smoke, pure carbon of the bleaving unconsumed. During life the fat is nearly fluid - It is present in the Economy from its first formation In the ovule of the ovum even before the semen is furnished

Bundah Estimates the amount in the body as 15%.

The fats are salts of oxide of Sipyle Fat acids with Soda form hard Soaps with potassa Soft soaps - There is always in this decomposition, first a fluid body produced, formed by 3 Eq H2O to 2 Ot of Sypile this is Glycerine Glycerine is never found in the body though it must be produced by the decompositions going on there. It is formed into Lactic Acid - Only 3 fats require attention - Stearine, Oleine & Margarine - They are neutral salts differing in Consistency. Stearine being solid Oleine fluid at ordinary temperatures Margarine is very soft but solid - Said Carcicts of Oleine & margarine & So also does human fat These fats are found in vegetables chiefly Oleine, Sometimes Stearine & Margarine only in the nut of the Cocoa

Fats are broken up by respiration of the Carbon & Hydrogen - There is ebullition of heat - by incessant succession of which is established the animal temperature - Every modification of temperature of 2 or 3° involves a deterioration of the plasma in which germs originate & there is defect in the germs - Fat may accumulate in great quantity & be normal - There may be abnormal fat accompanying the degeneration of tissue.

In the normal condition when the weight of the highest standard increases beyond 150 or 200 it is from accumulation & augmentation of fat -

When obesity arises early in life it is often accompanied with increase of sensorial action; & when it occurs in later life it is generally accompanied by debility - It often depends upon a Constitutional tendency -

Sometimes it occurs from engorgement of the

the accumulation of fat, augments the area of the Capillary Circulation & with various disturbances of function, because the general Circulation become deficient as the blood does not increase in proportion Fat people bear loss of blood very badly & have a small feeble pulse; respiration becomes impaired, the heart may be buried in fat impeding the circulation & when this does not occur there is a diminution in the vital Capacity of the Lungs-

When fat persons get sick & are very restless. They do not recover like ordinary people; Sometimes fatty degeneration & causes life -

It

Fat is indispensible in food -

Lactic acid is a normal constituent of several of the fluids of the body; of the Gastric juice - It is formed from the Amylum series - Dextrine & Glucose Lactic acid is also a constituent of the perspiration arising from an accumulation of this acid in the blood from a sudden check.

Phosphoric Acid = PO_5

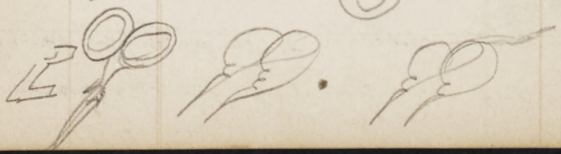
This has all the properties of the strongest acids but it is not corrosive - It has a great affinity for water - Phosphoric acid in form in the Brain in the bones - It does not Coagulate albumen Phosphoric acid unites with 3 equivalents of water forming three basic monobasic, bibasic, & tribasic phosphoric acid, each one different from the other as SO_3 from HO_5 The tribasic phosphate has the power of giving off its 3 eq water & taking 3 eq of some other base as Lime

an alkaline reaction of the blood is necessary for the Continuance of life –

Lactate of Soda is not a permanent salt in the human Economy Birds & animals fed upon food having no phosphate of lime died from inanition in six weeks –



Comenius



In the kidney no venous blood is formed - arterial blood passes out of the kidney by the renal vein in appearance, but it has no urine or Carbonic acid. The CO_2 passes off by the urine

Red Color of arterial blood is not due to any chemical action of Oxygen - $NaO\,SO_3$ will make it red so $NaO\,CO_2$

This fact is found to be true of salivary glands & Cones and nerves in dark according to the velocity with which the blood passes out of the organ - This can be proved by Examining the blood passing out of the salivary gland when & when not stimulated - All the glands when the same when the gland is in a state of repose it is under the influence of the Sympathetic System & dark blood is formed

Venous blood coming from the muscles is darkest when the muscle is in its greatest Contraction; though it is always of a venous character

The lobules of the lung receive their Capillaries from the pulmonary artery & Contain venous blood. The Capillaries of the bronchial tubes Come from the bronchial artery & Carry red blood The Dynamic apparatus of respiration is 1st pneumogastric nerve which in order to carry on the function of respiration -



Every living being comes from a Germ. A germ is never spontaneously generated. A Germ is the union of a male & female element. The material forming this Combination is a cell.



Arabic called man a microcosm - at forty days
running in the uterine world
equines in the human economy
of 100000 born are dead in 2 years 25000
" 5 "
" 21 " 50000

Normal proportions of death
should be 1% per year

Nervous temperament
Sanguine - based on the nobler
Lymphatic - predominance of lymph
Mesenteric
Mixed - best of all

Hellebore — Helleborus Niger
In Mania it revokes by the bowels from the head — Used as an emmenagogue in Amenorrhoea — Seems to have a specific action on the Uterus — Dose gr V, X vel XV
Extract is made with Alcohol
Dose 3 to 5 gr.
Tr — 2 to 3 ij Dose ℥ℓ XXX, XL or LX

Mineral Cathartics
Sulphur — found in the neighborhood of volcanoes
Sublimed & Precipitated Brimstone
Sublimed + not freed from the flowers of Sulphur Containing some SO_2 marked known as Sulphur Lotum — Should be employed
Insoluble in water & alcohol
Soluble in volatile & fixed oils —
Burnt away Consistent stools
Secretions is productive of pain
Used long it Enters into the Circulation

Is destructive to the insect of itch - Is an effective purgative in habitual Constipation - good in piles - Is used as an alterative in chronic rheumatism - May be Combined with Pot. Sup-Bitart 2 to 3 of Sulphur as purgative Externally is used in the form of Ointment -

Also employed in fumigation - for chronic Cutaneous affections keeping the lungs away from the fumes Covering the body & burning the Sulphur under the Covers -

Enters into many mineral waters -

Magnesiæ Carbonas Fum $MgS + NaCO_2$ Sulphate of Soda is more soluble than Sulphate of Potassa. Heat is employed

Comes in soft brittle slightly alkaline taste no

odor - Partaking readily -
Dose ʒj or ij to Correct Constipation
with an acid Condition of Stomach
It is necessary to meet with an aid
to be Converted into a Salt -

℞

Manna ʒj
Senspoen ʒj
dissolve in Aqua bull ʒiiij
& strain out Sen pens
stir Mag. Carb pulv ʒj -
carefully in the mixture
Dose a tablespoonful
Next comes off CO_2 Heavy
Magnesia - It is then in a light
white powder, slight alkaline
taste & no odor Except when
just prepared when it Smells of lime -
Stemps, Husband Slips &c
Magnesia are more heavy
& makes smoother mixture
& may be given in a smaller
dose - Is effervesced in

no pulsation to the aorta in the abdominal Canal - Dyspepsia let the patient drink of lemonade freely afterwards - Excellent in dyspepsia - foul stomach - diarrhoea from fermentation - Good for Tonic ~~Substances~~ - Subjects - In Urticaria it settles the stomach. Dose ℥j Sometimes given with Rhubarb Aqua Cinnam ℥iiss ij Combined with Calomel on the upper part of Canal Duodenum Liver - In early stages of liver affections &c - Magnesiae Citras. Kept in solution. May be given the morning after a blue pill

Magnesiae Sulphas - Found native in certain Springs disagreable bitter taste & no odor - Soluble in water.

Hydrogen purgative —
may be given alone in Combination with Compound infusion of Roses which to some extent masks its taste. Infusion with Tartar Emetic & Dental mixture also produce a sedative effect

℞

Pot: Acid Tart 3ss
Magnes: Sulphas ℥ss
Liq. potassae Citras ℥vi

~~A tablespoonful every half hours~~
A table spoonful every 2 hours —
May be applications when freely diluted —
A teaspoonful in a tumbler of water before breakfast every morning in habitual Constipation —
Common salt may produce just as good an effect largely diluted in this way
Still dose is ℥i

Sodae Sulphas found native
in lakes in Russia & Siberia
Made $NaSO_4 + 10H_2O$
Is in form of Crystals No odor
bitter taste Not much Employed
Given like Epsom salts under
the same circumstances —

Potassae Sulphas —
SO_3 on $KONO_5$ in the formation
of nitric acid. Small quadrangular
Crystals Sparingly Soluble in water
Saline & purgative. Not very
disagreeable to the taste Dose ½ to ℥j
for several days successively —

Potassae Bitartras —
Cream of Tartar from Argols
Diuretic as well as purgative —
Given with Juniper berries —
Also with Julap in pulv
Jalapii Comp
may be mixed with Molasses
Given with Magnesia
Dose ℥j to ℥ij

Given in Dropsy
when potassa nitras is soluble
Potassæ Tartras dose ℥ss to ℥j
is a diuretic
Combined with Senna, Tamarinds
Rochelle Salt is
Sodæ et Potassæ Tartras
and Carbonate of Soda to
Cream of Tartar
A laxative powder acts as a
purgative —
Sodæ Phosphas — dose ℥j
in smaller doses in soups —
Having to examine blood they took
a long time with a weak Solution of
Sodæ Phosphas

Dr Hodge—

Vesico Vaginal fistulæ are generally owing to delay in the use of instruments, from the pressure of the child's head in planning the tissues—

Looked head in 3rd position—

Head is usually arrested in the transverse position—

The forceps should not be applied to the Symphysis pubes & Sacrum—

Dr Hodge delivered a living child through a diameter of 3 inches.

Use the means applied to the occiput to increase flexion

Give a child chance of life in a diameter 3 inches & a half—

In Cases of doubt the great rule is to save preferably the life of the mother & perform Embryotomy — Avoid a dangerous instrument

Doctor Jackson. Amygdalum or 2/11/38

What is the origin of the Lymph? Dr

Not from the waste of tissues. It is too much. It is from the fluid effused into the tissues. 26 pints Cow. be obtained from the thoracic duct of a Bullock in 24 hours. Magendie ligated the duct of a dog & in 24 hours it was ruptured. Another time he punctured the impeded duct & the fluid was ejected 3 feet.

In the villi Commence the lymphatics of the mesentery.

The lymph is Carried into the lymphatics by endosmotic action & Carried along in Consequence of vacuum formed from the employment of what is already in the vessels as the Sap of a plant is drawn to the top from evaporation at the top of the leaves forming a vacuum.

Blood

Contains the proximate elements of the whole body in a fluid state; & is therefore the organism in a fluid state. It is the most heterogeneous fluid known. It is not always the same fluid in the same portions but is continually undergoing molecular change — It is under the direction of a dominant law that the end of these mutations is the production of an organic being — & it always produces the same organic structure in the same plant — So long as the Blood is under the conditions of life action such is its action — when drawn off or dead it undergoes putrefaction into its ultimate chemical structure &c — when drawn is a clot or viscous fluid Sp gr 1055 which character is indispensible to it. It has less Sp gr in infants than adults. less in women & varies with disease &c. Sp gr & its latent heat seem to run together

Venous blood in the kidney is arterial in its hue - but the fibrin has disappeared + albumen increased the CO_2 passes off in the urine 78 parts in 100 of the gases of urine - where the blood passes through a part with great rapidity it is more + more arterial in its color ~~color~~ in proportion to the activity; but it is not arterial blood, having undergone change - drawn from the body it speedily changes color on rest - Arterial blood is rendered black by the Contact of Serum - Blood of vertibrate animals is always red - In the invertebrata it is of all colors - Sometimes blood is whitish in fat persons soon after Eating from the amount of fatty matter penetrating the vessels through the transudation - Arterial blood is thought indispensable to organic life alone -

But in the foetus there is no bright red arterial blood & there nutrition goes on very strongly - Red blood has little to do with nutritive actions - It is only when the nervous force is necessary that it becomes indispensible & that is not till after birth - Here Color is not so much connected with the action of the blood - when all made arterial in color by Carbonic Oxide the animal dies but the Oxygen is all driven out - Prussic acid also reddens blood SH blackens the blood & is fatal CO_2 in large amount 30% produces asphyxia & must be prepared chemically - & the blood is very black but as soon as air is admitted it returns red - This does not occur with SH

When a patient is suffocated by charcoal CO the blood becomes black -

Normal temperature of blood is 100° to 101°. It varies in different parts. It is most in portal circle 101° 102° 102° in right side of the heart. It varies in all the organs, the blood that enters is cooler 1/8 to 1/2° than the blood that comes out by the veins in consequence of the action going on in the organ itself. Every organ when in action generates heat & Blood is the distributer of heat throughout the economy. Quantity of blood in the animal economy varies with the nutrition & size of the individual. The general rule is that it is 1/7 or 1/8 the whole weight of the individual. It is always greater after a meal proved by the tension of the blood in the vessels as ascertained by the Hæmodynamometer. This & Cardiometer tells the presence of the blood

In the normal state it gives 140 m as the standard Every pulsation of the heart sends the Column 10 mill meters. If the animal is bled the pressure only sends it up 100 m + Every beat sends it up 20 + 30 m forcing the heart into violent action + producing hypertrophy — In plethora Magendie found the reverse — it only rises from 2 to 3 m + the Circulation is maintained in its full force with the minimum action of the heart — Dempf birds is more than mammals 9° to 10°
If a mammal be kept in a high temperature + dry atmosphere it Can be borne for some time; but if suddenly raised to 150° it dies + the blood loses its Crassus rises to 10° or 12° + becomes black —
Birds perish likewise if their natural temperature is raised in the same proportion

Composition of Blood

Red Corpuscles

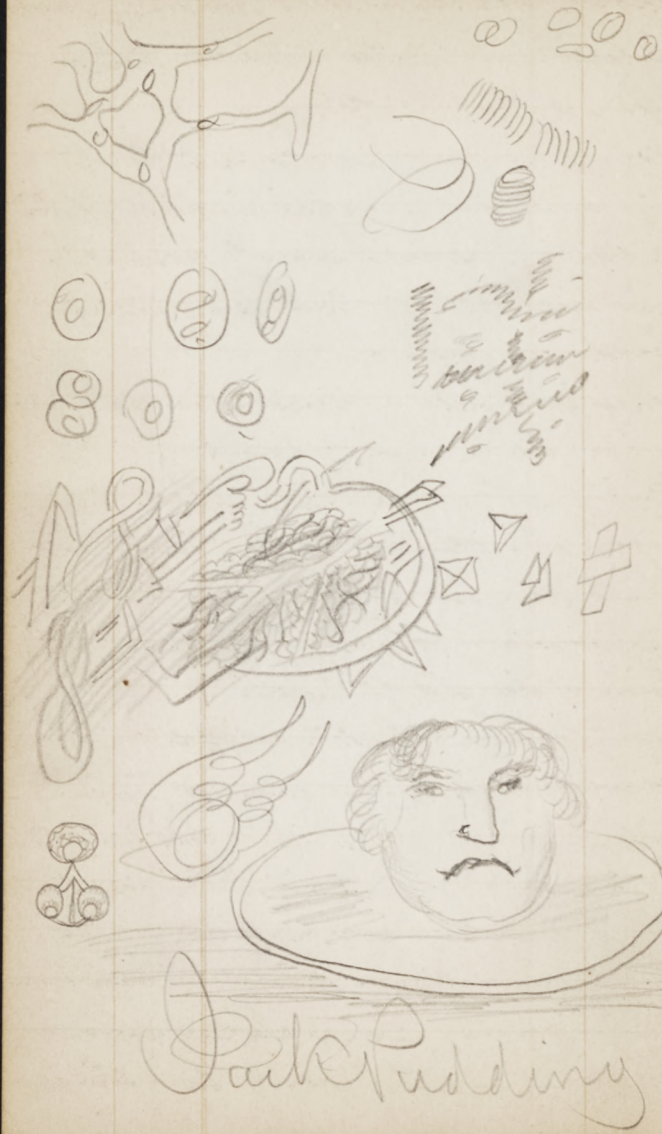
Water	688
Solids	312 / 1000
Sp Gr	1.0855
Haemoglobin	16.95
Globulin	2.82.22
Fat	2.81
Extractive	2.60
Mineral Substances without iron	812 / 8.1205

Liquor Sanguinis

Water	902.90
Solid Matter	97.10
	1000
Sp Gr	1.028
Fibrin	4.05
albumen	78.84
Fat	1.72
Extractive	8.94
Mineral	8.45
	97.10

Saline Principles

Potash Salts		Soda Salts	
~~H~~ KO ClO_5		$NaO ClO_5$	
$NaO PO_5$		$NaO PO_5$	
$MgO PO_5$		$MgO PO_5$	
$NaO SO_3$		$NaO SO_3$	
K	3.328	K	0.323
Na	1.052	Na	3.34


Jack Pudding

Blood Corpuscle diameter $\frac{1}{3200}$ mm
Soluble in water & dilute SO_3
not in NO_3 HCl
They have a tendency to sink
in ordinary or defibrinated blood
either - Sink most rapidly
in those from Cat, dog sheep
bird, & pig -
They assume a monetular arrange-
ment like rows of Coins.
This particularly takes place in
inflammation - The Color of the
blood depends on that of the red
Corpuscles - The Color depends on the
form of the red Corpuscles -
when biconcave it is arterial - when
biconcave has the convex face -
They are more numerous in the
male - in the adult - in the
Sanguine temperament - in
good nutritious diet - in arter-
ial blood, says Schmidt in
the Kepatic vein, but there

are coloured some are white -
They vary in different portions
of the Circulation < They dim
inish under iron diet, wasting
diseases, hemorrhages & venesections
[5,000,000 corpuscles in the
1000 of a cubic millemetre]
= MMMMMMMM
Do blood Corpuscles undergo waste
& decay & the reproduced like
other tissues ? Yes -
Dr Dalton says NO!!!
Dr Draper says millions die
at each beat of the heart -
Wolfler says the Spleen
is where they break up -
Dr Gray says they are regenera
ted there -
Bernard says the Liver
destroys the blood Corpuscles
& also produces their regeneration
less passed by Hepatic vein
than given in - Dr is of

Constituent of Bile & must be
it from the blood Corpuscles
There is a generation of Colorless
Corpuscles in the Liver - The
amount going out is enough to
produce Consolidation of the
Respiration, though there is no
fibrin. Simon, Lehmann Says Colorless
1st origin is the Blastema of
the Embryo from germ cells -
There is a mapping out of vessels
between the mucous & serous layer
after the liver appears the
origin by nucleated cell bases
which shows the liver has some-
thing to do with the origin of the
Corpuscle - When the non-nucle
ated cell originates is not known -
Robin has examined the Embryo
3/35 pts of an inch - has red Corpus
de Reuts with nuclei Some 2
Some 1 - when large non nucle
ated cells appear instead
& there is no regeneration of cells
from the white Corpuscles

white Corpuscles consist of many granules - are found in the lymph & in the blood - Muller Virchow & Lehman say these cells pus & mucus cells are all alike —

Robin says there is another white Corpuscle found only in Embryo & young people - fewer in adults - & they are nucleated & they occur in Leucocythemia & amount to 4 & 5 bl of the red Corpuscles — This Disease is often confounded with Anemia

Dr Macaulay of London in 1795
proposed the plan of premature delivery at 7th or 8th month in case of Contracted pelvis instead of resorting to the Cesarian Section at the full term.

Most certain mode of bringing on premature labor is puncturing the membranes. The only objection is when the waters escape the Contractions of the uterus drive the child.

Ergot frequently brings on labor but is unscientific, the powerful Contractions rupture the membranes before the dilation of the os.

Separate the membranes from the sides of the os uteri — with the hand

Take a large Male Catheter flexible & pass it between the membranes & the substance of the uterus.

Introduce a sponge tent between the os uteri.

By the Colpeurinter distending the vagina by air or water.

Or by Camphene —

Daily injections of warm water into the vagina.

Dylan Smith injects warm & cold water alternately—

Complications labor—

1. Malpresentation or position of the child—
2. Faulty displacements of the uterus
3. Exaltation of the physiological disturbances of the normal. Rigidity, pains, cramps, nervous conditions Insomnia—
4. Diseases of the patient—

In 4th pos. turn let the head come down with the occiput towards the posterior part of the pelvis—

If forceps are applied they must be much depressed, & flexion be instituted in the delivery—

The lever is better applied to the occiput

the forceps to increase flexion

The fillet is a good instrument put on the nape of the neck

the fillet should remain parallel to the occipito bregmatic diameter

1st position
When the chin departs from the breast,
the occiput is to the acetabulum & the
forehead to the opposite Sacro iliac Symphyses
English Cast it presentation of the Sinciput
Hodge Calls it presentation of the anterior
fontanell - Mechanism Cervix Presents
bi axial Diameter occipito frontal &
bi parietal Globular diameters -
Head descends - rotation throws face
into hollow of Sacrum & occiput -
behind Symphyseis pubis not understood
Is ancient -
2nd position - Ant font. presents -
R. Obl. Sacrum the Sacro occipital
Suture behind Symphysis or left Ramus
of the pubis - May Cause locked head
in pelvic bladder or rectum &
4th pos. occiput - R.S.I.S. - forehead
left Ant. b. - rotation throws the whole face
behind Symphyseis pubis impracticable -
Labor kills the child & mother too if
not assisted. Is not a forehead presentation

when required at the superior strait -
push up the fontis during the absence of a
pain & keep it there till the pain comes
& you change Ant to get fontanell -
presentation - or use lever or one blade of
the forceps pushing down the occiput
& during the labor act on the same principle -
In transverse presentations rotate at the
same time as you are producing flexion -
In occipito posterior with face jammed
behind pubes symphysis - push it up &
increase flexion - Or - make a
face presentation of it - extend & bring
the face under the arch of the pubis -

0381 Physiology - Feb 15th 1860

Vascular glands - Spleen Suprarenal Capsules, thymus & thyroid glands - They have some influence on the blood - Spleen in some animals seems to be unimportant. Dogs have lived after its extirpation & the animal gather fatness - An individual recived an injury in which the Spleen was amputated & the patient lived - It is supposed leucocythemia is connected with disease of the Spleen Suprarenal Capsules - D'Addeys one found a bronzed Complexion connected with alteration of these bodies & his patient died - Dr Brown Sequard extirpates them from animals & they died in a few days without enough peritonitis to account for the result - Cases are found in which they were absent - One individual died of phthisis at 30 wt - one kidney & no Capsules -

White hats almost always recovered from Sequards experiments

Pathological conditions of the blood

In 30 years Dr Cox & Parkes were the only humoralists in Philada

alterations of fluids of blood as a whole are only two plethora & anemia

Here is an alteration in quality, but the quantity generally remains the same

When blood is withdrawn, the solids are depressed & the water augmented, but the amount of liquid remains the same

In some few cases from disordered digestion particularly the process of assimilation the quality of blood is depreciated. The patients dry up & become mummified

Here maybe variations in the constituent elements of the blood. The red corpuscles in chlorosis suddenly diminish

To ascertain decrement of red corpuscles they must be later moist not dry amount varies from 570 to 540 in 1000

Schmidt gives a rule to ascertain them multiply decrement of dry corpuscles by 4 & you get the number of moist corpuscles

In Corpuscles they diminish by
to 30, 80, 90 & lower - The nervous
System is subject to a variety of
disorder, neuralgia, headaches,
palpitations, bellows murmur &c &c &c
Blood Corpuscles may be in excess -
absolutely called plethora - 520 or 530
to 1000 pts blood - in Cholera, Severe
diarrhoea, they are augmented
relatively even to 600 but the water
system actually diminished &
drained off & the blood becomes
thick & viscid - In 1832 it
found by rubbing a piece of tin
over the hands of a Cyanosed Cholera
patient perfectly blue, rendered it
immediately pink -
White Corpuscles - sometimes
augment very much in Leucocy-
themia - In atrophy they become
reduced -

Fibrin augments with inflammation
Bernard has proved febrile & albumen alternately change into each other — Fibrin increases deficient & there is a great tendency to hemorrhages from slight Causes — the blood not Coagulating — Sometimes this is an hereditary Condition —
In severe malignant fevers, fibrin decreases diminishes & the blood Albumen undergoes little alteration —
Coloring matter of bile, urin and sudates &c may accumulate in the blood &c
Contaminations of the blood from the exterior, absorption by lungs Skin & Stomach — Organic poisons Exanthemations & Contagious miasms —
Idiomiasms generated in the living body, or from matters eliminated from the human body — Cholera typhus fever, plague — &c &c &c

Poisons fomented Miasms generating specific diseases

Depravations of the blood - producing leprosy &c which prevails near the St Lawrence on the So side of Quebec & there is a hospital on the Island -

Psoriasis - Syphylitic poison -

Disorganization of blood by the introduction of animal poison, or animal matter in a state of decomposition - Rattlesnake & other bites - dissolving wounds -

Hydraulic apparatus of the Circulation

Base of the system is the Capillaries the network is of the same calibre & intimately associated with the tissues In each spot of the rete is a molecular cell Each cell demands & 100th plasm as well as the whole organization -

Simplest animals of all have no vessels - Next there is a Capillary system - perhaps communicating with the stomach

No two tissues have the same arrangement of Capillaries — A celebrated author has demonstrated 23 varieties —

The artery carries the blood & is elastic & contractile — There must exist a constant pressure to maintain in its integrity the Capillary Circulation Artery distends & elongates with each wave of blood sent into it, then it contracts — The amount of the Caliber of the vessels is more than the main trunk — As the quantity of blood varies the contraction of the arteries keeps the walls in contact with the blood — Thus we have a circulation without a pulse — Dr J relates a motion of a physician who lived this way 10 years —

Obstetrics Feby 16, 1860

Face presentation - top of forehead + chin - 3 in x 2½ - chin presents mental presentation passes to left acetabulum - Chin to R. S. Symphysis - 1st 2 3d are unfavorable + 4th + 5th favorable - Mechanism of 4th pos. Chin to left acetabulum - head descends without displacement - After the face passes - the diameter of Cranium present - [illegible] - bregmatic 3½ - front of head to top of head - Upon Perineal - occiput pushed - in axis of pelvis - chin pleases on the Ant - inclined plane - Chin rotates under arch pubis - then occiput - gets in the hollow of Sacrum - then the same diameters present at the inferior strait - Chin rises up in front pleases the Symphysis dipping between the Chin + breast -

3d position is turned off by the same into a 4th or 5th position -

The oblique diameters are the longer & these presentations may be put under the name of natural presentations -

In 1st & 2nd position - chin sticks on the pubis oblique plane & vertex in hollow of sacrum & top of head behind the arch of pubis - very difficult - shoulders engaged - & there can be no flexion in multiple labor -

---

Whole face is in circle of contact Vertex dilating - recent & tension by the waters -

If forceps too late try to turn 1st & 2nd position

If chin is in hollow of sacrum it must be tried through perineum must be turned - This is the only hope left - Forceps promises death Such cases are generally abandoned to Embryotomy

Br of 45 pres^n when chin is under
arch of pubis - Mentum anterior
& pointed by forceps applied to
occipito frontal diameter -
chin anterior - Sinciput lambdoid
also filled
- Presentations of the forehead -
1st middle Sagittal suture to
hypogastrium - chin to R S J S -
Occipito frontal to axis Sup - Sinciput
parieto mental diameter 14½ inches
Head not be arrested - Rule is
to make a vertex presentation -
in other instances make a face presentation

Cardiac Pressure

Heart of Dog Cardiometer inserted in right ventricle

Minimum	Maximum
0	60
0	50
0	40
as high as	70

Arterial pressure

Cardiometer applied to superior end of divided Carotid

Minimum	Maximum
160	180
160	150
160	170

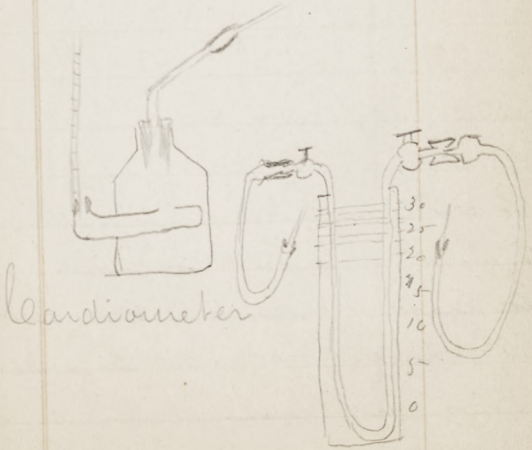
Bled 15 grammes

Forces regulating the Capillary Circulation are 1st impulse of the heart 2 pressure of the arteries 3d Exosmose — 4 Elastic pressure of all the tissues 5 Nervous force

Dr Draper attributes the Capillary circulation to the affinities between the tissues, & the matter contained in the vessels — This is one but not the sole cause —

In the Capillaries all nutritive actions take place — seat of irritation, morbid growths & every organic modifications —

The arteries have a mechanical office alone — Heart has also physiological functions also — acting in its vital character, which its contraction produces a mechanical effect —



Cardiometer

Bernard's differential

Vertigo is often mistaken for stress of blood — It arises from want of pressure —
Heart sees 3 orbits — Contraction Systole — relaxation or dilatation diastole —

Presentation of the side of the head push up the head in the absence of a pain + make version by the vertex —

Extension of the head in pelvic delivery gives occipito mental descensus — impracticable so the forceps on the side of the neck + produce flexion — + extension effort may be made — Not a case for the forceps — Place a blunt hook in the orbit or nostril + produce flexion. This is after the Surgeon Stuart

Transverse positions -
occasionally met with, but
very few are persistent - version
spontaneously occurs - the body
of the child is very flexible
If version cannot be accomplished
be turned by the contraction of the
circular fibres of the uterus, into
a breech presentation
Dorso-pubic-position of right shoulder
" Sacral " " " " left "
Impracticable - seldom required
in 1st stage of labor
Dr Douglass describes spontaneous
evolution - head to one side of pubis
shoulder delivered under the arch &
body delivered double — Dr Hodge
thinks such a delivery almost impossible
says don't trust to written spontaneous
version or evolution dangerous to child &
mother — Facilitate spontaneous
version - If a deviated pelvic
presentation pull down
the breech & rectify it —

If shoulder presentation, reduce to version by the ~~[illegible]~~ feet but till os is dilated, as soon as os is dilated, as soon as os is dilated, as soon as

Nervous System

Organization of the Nervous System

I. Elementary or primary forms

1. Nucleated + nucleolated cells or vesicles
   Gray Nervine

2. Tubules or tubular fibrillae
   Medullary or white

II. Parts or anatomical Elements

1. Ganglia - centres of nerve action

2. Commissures - Unitive fibrillae
   Combining ganglia in a Community of matter

3. Nerves transmitting impressions from sensitive surfaces to Central Ganglia + from central ganglia to muscles
   no Muscles

III. Divisions of the nervous System

1. Cerebro-spinal or brain 2. Sensorium - Commune of Sensorial ganglia at the base of the brain 3 - Cerebro Spinal axis - 4 Sympathetic nerve or Ganglionic System

IV Functions - 1 Psychological + animal powers + in 2 kinds 2. Special sensibilities 3 Organic actions - excito motor forces

Cerebro Spinal axis – the first developed in the excito motor System –

Functions of the Cerebro Spinal Axis –

First or Essential organs

1. Motor or Mechanic force – anterior Ganglia + nerves

2 Excitor force – Posterior ganglia + nerves

Second or auxiliary

Transmitter of sensitive impressions – Central gray matter + posterior roots –

Functions of the Sympathetic auxiliary to the Cerebro-Spinal system

1 – Regulating the Capillary Circulation – enlarging + Contracting diameter of arterioles

2 – Excitor of peristaltic actions

Brain has no direct influence on the nutritive functions –

A Ganglion is an accumulation of nerve cells + Every nerve cell is a separate nerve Centre –

The ganglion in the posterior root is connected with nutrition of the nerve.

The anterior root possesses remnant sensibility.

The spinal fluid conveys the blood - O. and Capillary pressure

Sensory Functions

Arsenic – Reagents test of
iron – precipitates from chloride
by ammonia –
for Argentic Nitrate Common Salt –

Arsenic

As 75 – Sp gr. 5.8 Volatile at 356°
Realgar (Red) As_2S_2
Orpiment (Yellow) As_2S_3 – Kings yellow
2 Native Sulphurets –
Heat in open air to loses O
fusion of S & becomes a white
crystal arsenious acid white
arsenic, Calcium treated by
HNO_3 into arsenic acid –
boil arsenious acid with Caustic
potass, they neutralize &
Arsenite of potassa is formed
Donovan's Solution –
Antidotes – for Copper – Albumen
for Lead – Epsom Salts –
for Zinc – a Narcotic &
Soothe irritation from vomits
for Tartar Emetic – Albumen
tannic acid has been recommended
$HgCl_2$ – valuable when of 2/3
in abundance

James powder - Sesquioxide of Antimony + phosphate of lime —
Add 3 HCl to Sb_2S_3 + we get yellow Sb_2Cl_3 + 3 HS — throw this Sb_2Cl_3 into water it reacts + forms a white precipitate - tartar Sb_2O_3 + HCl - Sesquioxide boil this with Cream of Tartar + you form Tartar Emetic

Sb_2O_3
+
+ + the 2 crystallize as a double salt - Tartar Emetic
KO

Kermes Mineral is a Sulphuret of Sb precipitated with a little oxide of Antimony

— Silver —

forms acid + protocompounds

Chloride of Silver very insoluble + Common is a Safe antidote for Lunar Caustic {only Solvents ammonia + Cyanide of potassium +

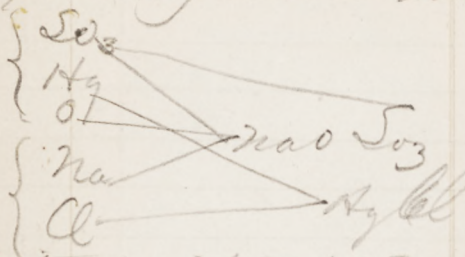
So named from being Easily Subsefeited for Jalap root & Jalap —

Antimony

Sb. 129 - Melts at 810° Sp gr - obtained as a Sesqui Sulphuret Roasted in a crucible & heated to melting from the Ores Metallurgy a Vitrified Sulphuret heated with iron & heat, Antimony may be run into moulds - very brittle Crystalline, pulverable - Heated in the air it burns fumes into a Sesqui oxide - fum KO_3 takes O & passes fum Sb to SbO_3 - Antimonic acid Heat SbO_3 - moderately dense yellow & smoke Antimonious acid SbO_4 Sulphuret mingled with limings of bone or horn - heat - O takes the place of S - pulverulent of lime is left - & white powder is left

To obtain Calomel

Convert Bisulphate into proto sulphate by adding metallic mercury



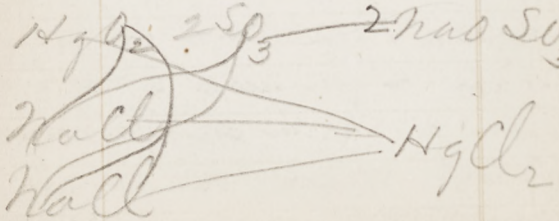
triturate with Salt & Sublime — there rises a heavy white mass a little bichloride being with the Calomel more or less —

Grind the mass thrown it into boiling water which dissolves the Bichloride — steam wash & wash & wash —

Turpeth Mineral —

made by Bisulphate which thrown in water changes from white into yellow, becoming a Subsulphate of the deutoxide with a deficiency of SO_3

To make persulphate of proto Hg
Keep it cold - to make the
denito compound - keep it warm -
add SO_3 to Hg cold - no action
boil - & it forms $HgO_2 2SO_3$
Proto Sulphate made by
precipitation - In making
Basil phate by precipitation it
quickly decomposes -
$HgOSO_3$ - white - partially soluble
$HgO_2 2SO_3$ in a large solution
rest with Salt. put in one
pot nitre an earth lid luted
apply a moderate heat &
form Corrosive Sublimate



Lead - Pb - 104 - Sp gr 11.45 Melts 610°

To detect lead — chromate or bichromate of potassa strikes a yellow precipitate — Chrome Yellow —

SH - produces a black precipitate

Mercury

Hg. 202 - Sp gr 13.5 Boils 662° freezes — 40°

2 oxides - 2 chlorides - iodides - bromides

Sulphurets, Nitrates, Sulphates —

Deutocompound are more powerful than the protocompounds —

An alkali acting on the protoxalt of Hg will precipitate the protocompound the greyoxide (black wash).

A Deutoxalt mixed with an alkali precipitates the deutoxide (yellow wash) red oxide — red precipitate —

Bisulphuret of mercury is Vermillion —

Protiodide - Spanish yellow

Deutiodide - a play of colors yellow, orange & crimson —

Copper - Cu - 32 - Spgr. 8.96 -
melts at 1996° -

$CuO, SO_3 + 5HO - CuO NO_5 + 3HO$

2 oxides of Copper -
hydrated
Blue oxide of Copper by precipitation
Anhydrous oxide of Copper
~~heat~~ heat
Carbonate of Copper
Iron filings & Sugar have been recommended - the best is albumen - white of egg - & then an emetic -
Zinc Zn (Zinitum) 33 Blen
& Calamine $ZnOCO_2$ - Spgr 7 melts 773°
on ~~st~~ addg of caustic pota or soda the oxide of Zinc but not oxide of Magnesia -

~~NaO SO_3 + HO~~ NaO SO_3 + HO

Bi Sulphate NaO SO_3 + HO SO_3 } Tribasic Phosphoric acid

Phosphate 2 NaO, HO, PO_5 }

neutralize Soda or its Carbonate by Phosphoric acid –

– Baryta Strontia } + Hydrochloric Acid

Lime & Magnesia – }

Ca – eq 20 – CaO (Lime) 28 less soluble in hot water than in cold & little soluble in cold

Magnesia Sulphas is in Some Aspects than Potash – less like Ferric Sulphas –

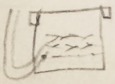
Iron – Fe – 28 Sp. gr 7.8 melts at 3300°

Antidote for Arsenic

add Soda Carbonate to Fe Ferric Chloride

(also hydrated Oxide of Iron)

To get Soda - add milk of lime to $NaOCO_2$ =
add SO_2 to $NaOClO_2$ = $NaOSO_3 + HCl$
mix milk $NaOSO_3$ coal + lime +
Sulphit to heat in an arched furnace
$CO + CO_2$ are formed & $CaOSO_3 + NaO,CO_2$
this last is thrown in water +
$NaOCO_2$ is dissolved + Evaporated + dried
yields the Commercial Sal Soda
$NaOCO_2 + 10HO$. acted on by $CO_2 + HO$
present 2 eq CO_2 will absorb up to
bicarbonate formed - the method is
to take a large box of wood with trays
like sieves on which is placed some
neutral Carbonate of Soda pass CO_2
into the box dissolved light Co_2
disappears & HO + taken down flame
& steam will be left a mass consists
of Carbonate of Soda + the remaining
Carbonate of Water - the
Bicarbonate of Soda $CO_2 NaO\ HOCO_2$



are dissolved in water + the vessel is widely open + shallow. While the liquid is evaporating it is thrown into spray in the air by a paddle + the mass assumes a granular pearly appearance obtaining its CO_2 from the air - Add SO_3 to Caustic or Carbonate $KOSO_3$ is produced. Is usually made as a residuum after forming NO_5 from Nitre + SO_3 - Dissolve in water + Crystallize becomes hard + angular + very dry + is very valuable in pharmacy used in making Dover's powder -

Nitrate of potassa - $KONO_5$ - naturally produced Nitrate of lime + Carbonate of potassa - forms $CaOCO_2 + KONO_5$ -

Gunpowder 75% $KONO_5$ 12½% finely divided charcoal + 12½% finely divided Sulphur mixed moist - rather Saltpetre is it Containing Oxygen -

Sodium - resembles potassium more easily reduced from the oxide + comes off more fusible lighter than water - does not quite take fire on the surface of water - must be kept in Naphtha or some other Carbohydrogen -

Na 24 - NaO_{32}

Zinc - from distillation by descent
Condensed by water from vapour
into granular zinc —

Salts - Elements into metals - Halloid
" Compd of O + Oxidized metals - Oxisalts
" " H + Hydrogen - hydro salts
" " S + S - Sulphosalts

Potassium - decomposed by the
Galvanic Current from potash
& Collected over Naptha in small
pea like bodies -
Nitrate Bicarbonate of potash one
Sol Shovel - K - floats on water KO is
heavier than water - 6 of HO unites
with K + takes fire the H being burned in
the O of air reforming water - K - HO Comp of
KO - HS Comp of Water Natural to the vegitation of the
soil - Is the land alkali (Soda is the marine alkali)
$KOCO_2$ pearl ash - made from Crude
potash as brought from Canada & the West -
is not pure Caustic or pure Carbonate - There

Metals — 5th - 16th 1860

They unite with O. Cl. I. Br. & S alone

Similarly — also Boron with P. C —

They combine as puro - or sulfo - acid Bases

Metals the oxides of which are alkalies

" " " " Earths *

" " " " alkaline Earths

" " " " amphida [oxides]

Earths —	Alumina	Al_2O_3	
Glucinum	Glucina	G_2O_3	
Zirconium	Zirconia	Zr_2O_3	*
Yttrium	Yttria	$Y\ O$	
Thorium	Thorina	$Th\ O$	

Metals found combined are usually

Oxides, Sulphurets &c.

oxides — are reduced purely metallic by

Charcoal & heat — C takes the O

Lime is however in the furnace to separate

the aluminous Siliceous & other Earthy

matters with the oxide of the metal —

Their fuses the Siliceous & aluminous

materials into a fusc called Slag

atonic state of body - Dilute Nitro
Muriatic, or Nitro Muriatic acid
to solve this form of stone -

Phosphate of lime is very soluble
in water, insoluble in alkalies -
Soluble in the Mineral acids -

Rarely is found Carbonate of Lime — if effervesces with any acid — heated lime is left which gives alkaline reaction

Uric acid is often found in sand or gravel as Urate of Soda or potapa — If a white residue is not lime it will dissolve by a drop of water —

Treatment per gout chemistry tendency to deposit of urates is to give alkalies — Salts of vegetable acids — Citrate of potassa Bitartrate of potapa — Carbonate & Bicarbonate of Soda —

It requires 1000 of water to dissolve one of uncombined Uric acid, while urate of Soda & potapa are very soluble —

Oxalate of lime is very insoluble in water & totally insoluble in alkalies — if NO_5 or HCl is added it is dissolved — In dyspepsia

If it be phosphate of lime it will effervesce with Nitric Acid—
If a little acetic acid be added it will not dissolve it unless warmed up— Cold Muriatic acid assisted will dissolve phosphate of lime
Ammonio-phosphate of magnesia
This is irregular rough soft & friable
Pos— Am-Mag Ho— a triple phosphate
When placed on foil burns for a moment a little dark & leaves a white residuum— It dissolves in acetic acid—
Fusible Calculus— placed on the foil & heated, burns dark— leaves white residue— Not alkaline— Acetic acid dissolves it— only part dissolves—
It is therefore a mixture of phosphate of lime & ammonio-phosphate of Magnesia

Add to suspend Lithic or uric acid
in a test tube Nitric Acid - Heating
it a swimming occurs, orange-
colored fumes will be given off & use
the NO_2 gives O to the Uric or uric acid -
& when the action is over the liquid
will be clear - & this must be Lithic
or uric acid -

Take another specimen - if a
white ash very minute in quantity,
& turns turmeric yellow brown there
must be some oxalate of lime. But
there may be something else -
Introduce some into a test tube & add NO_5 -
If it does not immediately dissolve,
apply heat - if it effervesce & give off
Orange fumes $& NO_2$ - It must be a
mixture of Lithic acid & oxalate of lime -
- If a specimen burns only
slightly away & does not clear much
& is not alkaline - It must be
Phosphate of Lime -

To find out what Sediments are — place some on a clean platinum foil & apply the heat from alcohol lamp to avoid smoke — Take blow pipe & inject air to develop a greater temperature — If the Sediment disappears it can be but uric acid proper or mate of ammonia all volatile —

Another Sediment, turns black or red the other when placed on the foil & heat applied. Continue the blow pipe. The black material may become white & no amount of heat can drive off the white residuum — The burning black or charring proved it was an organic Substance. The white Substance turn turmeric yellow brown — must be an alkali & must be lime & can only be Oxalate of lime

The quantity of Urate of Ammonia naturally is just enough to be dissolved In fever, rheumatism, gout & any Excessive irritation, urine becomes redder & Contains Urate of Ammonia in Excess – deposited as a brick red substance on the Sides of the vessel –

A form of small calculi from the union of Oxalic acid & lime which as Sand does little harm, but forming nucleus of acutions becomes the mulberry Calculus –

We have naturally phosphate of lime & ammonia, & magnesia If they accumulate, they may precipitate in the organs of the body or in the vessels in which they are secreted –

1st Uric acid 3d Oxalate of lime –
2d phosphate of lime – 5th Ammonia phosphate of magnesia –
6th Fusible Calculus –
a mixture of 4 & 5

of a yellowish brown color. Gently warm it to rid of albumen that might be there - Filter to separate the albumen - Pettenkoffer's test for Bile - Bilephyn reacts with SO_3 + Common Sugar in the production of a beautiful red tendency to violet - add to urine 1/3 its bulk of ordinary Oil of Vitriol gently, drop by drop, lift a number two of common Sugar into it & apply a heat -

3 Calculi proper

Urine contains naturally all of the ingredients in small quantity that may when increase develope the Stone, Gravel, Sand &c -
Uric acid .398 in 1000 - naturally
It is an urate of Ammonia & urate of Soda, which are more Soluble than Uric acid while requires 10000 parts of water to dissolve it -

Make use of Fermans or Barruins
yeast, in a dry state which Contains
no Sugar -

Urinary Calculi !!!!!!

Urea - 2 oz in 20 -
12 pt in 10 oz =
Urea is dissolute in an Equal amount
of water - To Separate it -
Evaporate healthy & Suspected
urine & add NO_3 to form Nitrate of
Urea. Healthy urine yields no
Crystals of Nitrate of Urea & the
diseased urine not - adding
Caustic potapa Separates urea
dissolve it in Alcohol, Evaporate
& get long Crystals of Nitrate of Urea
which burns like feathers & hair -

Bile

In diseases of the liver bile is
retained in the blood & occurs in
the Urine - The Color is generally
tinged not clearly of a greenish hue

change Color to a brown or Salmon
Colour precipitate of the Dioxide.
Heated to boiling, it becomes brick
red -

Another test - This is by vinous
fermentation -

Pour into a vessel a quantity of
diabetic urine, put also a portion
of yeast in a Solution of yeast.
Place alongside another specimen
of sound urine yeast &c for Compari-
son - Yeast develops Alcohol,
which remains dissolved & a
volume of CO_2 which is much
more than that given by the
normal urine & the Necessary
Known the Amount of Sugar
may be Calculated -
Urine in a normal State will
not give CO_2 to Yeast unless it
Contains a little Sugar which does -

To test for Sugar — when persistently voided not only after certain meals no matter what food or drink be taken, the patient labors under diabetes mellitus. The quantity voided is immaterial.

Grape Sugar $C_{12} H_{12} O_{12}$ reduces peroxide of Copper to a dioxide of brick red, while CuO is either green or black. How this is done we cannot comprehend. This is not the property of any other ingredient of the Urine —

Add to the urine, (generally pale heavy Sp gr - natural in quality) a few drops $CuOSO_3$ enough to give a pale greenish tint to the urine. Add a large excess of a Solution of Caustic potash, & a greenish blue precipitate of CuO will result which is redissolved & the liquid becomes clear & of a blue tint. Apply a lamp heat carefully to produce ebullition — The blue liquid will

Organic Chemistry

Urine

To test Sugar -

Normal Urine Sp. gr. 1018 per entire day
or that taken after a night's rest
Average amount in 24 hours 20 to 25 ozs
Perspiration " " 15 to 40 -
Mental Emotion will bring 8 to 12 in day
Diabetes Mellitus " " 100 " "
If there be persistent discharge of
albumen, it is a strong indication of
albuminuria.
Apply a gentle heat it becomes
clear and, milky or coagulates ac-
cording to the amount -
Phosphates in excess in Lactic acid
many products like opacity but this
is cleared up upon cooling by dropping
NO3 but if it be albumen the opacity
remains or is confirmed -



36.75
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cases severest mention consultation

Chinese notes

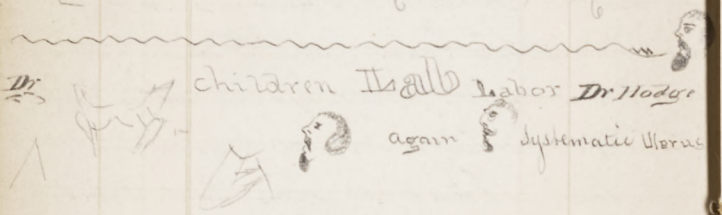
Ballingers history

Hoc celebrons

Lassen sieben wir uns

Labor

one of the premonitory Symptoms



Dr. children Isaiah Labor Dr. Hodge again systematic Library

Hodge Feb 2nd –

In Case of double children held together they may perhaps be born by what Dewees Calls Spontaneous evolution. – ~~~ –

– Obliquities of the Uterus –

Generally speaking these lead to no bad results – The os uteri is proportionably displaced. They do not always exist during the second stage of labor + the obliquity is spontaneously rectified by the pressure of the abdominal muscles – In Anteur obliquity put the woman on her back + support the abdomen by manual pressure or a bandage

Premature labor may be accompanied by displacements of the uterus within the cavity of the pelvis – Anteversion or prolapsus can readily complicate labor

Procidentia Uteri –

Retroversion of the Uterus in the early period of uterine gestation – Pregnancy sometimes occurs in a retroverted uterus –

Retroversion may not remain persistent + may rectify itself the pelvic viscera developes more

& it is necessarily a cause why it should be replaced & thrown the fundus forward - Accumulation of the rectum as the uterus enlarges may rectify the uterus especially if the bladder be kept empty - When this does not cure bad consequences must result - Habitual abortion is often caused by retroversion of the uterus -

If there is no abortion - the bladder may become distended & become fatal Displacements of the uterus must be attended during pregnancy, the same as in the unimpregnated state - Keep the patient recumbent - quiet - evacuate the bladder every 4 hours - allow no straining effort

To replace retroversion - Sterilize the vagina parallel with axis of the uterus & push it up by the fingers - Lower pessary - & gradually raise the uterus - acting carefully -

Fourteenth



When the uterus cannot be destroyed
bring on premature labor — & avoid
the bad Consequences to the Mother —
+ Physiological Disturbances —
on the part of the patient may Complicate
labor — — There may be rigidity
from vital Excitement — There may be
too much nervous or too much organic
excitement or both — Spasmodic Contractions instead of regular pains — Vital
Excitement may be general or local —
May be puerperal Convulsions Cerebro-
spinal irritation — delirium — mania etc —
The woman may be plethoric causing
general organic Stimulus — There may be
vital Excitement, Excitism, + rigidity in
the Os uteri, vagina or Os externum —
Tension may depend simply on nervous
Causes Spasm of Os Uteri — Dr Hodge has
known it take 5 days to dilate the Os uteri
Size of a 10 cent piece dependant on the
nervous system — (To promote
relaxation we want Sedation)

These occur usually in females
in their first labors 2d
Females married late in life are
thought to suffer much from rigidity
of the os - but young things suffer more -
When the os dont dilate it is often
very dear without projecting into
the vagina - (whip cord os uteri)
Rigidity is the nervous & vascular
resistance - directly & indirectly -
dependent to the Lancet - this was intended
by Dr Dewees -
If there is hemorrhage administer
Castor oil - Enemata, mucilaginous
fluids with or without stimulants -
act on the skin: kidneys & to relax
tension & produce secretion - pour
back - mustard applications to the
thighs - pudenda - bathe interior of
the vagina a stream of warm
water 95 Fahrenheit -
Preparations of opium (- Morphii
sulphatis is Dovers powder -)

to quiet cerebral & spinal irritation.
Give Ether by inhalation - o - ☉ -
this diminishes nervous & muscular
excitement - Dr Hodge much prefers the
lancet.

Do not commit rupture the membranes
even after the os is apparently dilated
because rigidity may recur -
after the System is moderated
apply Narcotics - internally or locally -
Extract of Belladonna locally
anointing the edges of the os uteri
to relax the circular fibres - not very
efficient -

Rupture of the Uterus - or
rupture of the vagina may occur -
there are predisposing causes - thin
ness of the walls - naturally or from
softening, from ulceration - Some
of the prominent points of the
pelvis may be sharper than usual
Tumors - may prevent the passage
of the child - may occur under
moderate muscular contraction

Weight may cause rupture -
Vagina is very distensible - but
from resistance below may be imm-
instately stretched & give way - nearly
the whole body of the child heavy
in the vagina -
In these accidents - labor ceases
& there is hemorrhage & prostration -
the child may even recede & even
pass into the Cavity of the Abdomen -
Must Resort to delivery if
possible instrumentally -
If the child is in the uterus use
version by the feet - If the child is
in the abdomen - also version being
careful not to irritate the intestines -
If the child is in the abdomen &
cannot be reached - the child maybe
emptied it is said - but the patient
dies from prostration & from peritonitis
Recent Cæsarean Section Dr Miller
Pope of this city have twice
performed this operation successfully -

Puerperal Convulsions.

one in two die - Cazeaux says
one in three die - Dr Denman
made Epileptic & apoplectic
Epilepsy one not above puerperal -

Hysterical Convulsions -
(not dependant on hysteria) They seem-
ally occur in the first labors of strong
healthy young women -
They are brought on by anything that
excites the animal economy - depends
when there is irritability of the Cerebro
Spinal System - often arise from
indigestion - Constipation Hemorrhoids
& even simple pain - particularly
in the region of the uterus - pain in
the 1st & more so in the 2nd Stage of labor -
irritation of the Sacral nerves by the
childs head - from bearing down & holding
the breath emptying pulmonary artery
descending Cava & the brain & they
often occur in a bearing down effort -
By operations during labor -

After delivery - Mental Emotions &
irritability, plethora predisposition
continuing - They may occur as
late as 3 or 4 weeks after delivery -
Prognosis of hysterical Convulsions
favorable - May occur in any part
of utero-gestation - for hysterical
Convulsions general antispasmodic
remedies - Cold to the head - Salammo-
nia &c Sinapisms to the Stomach &c
Inhalation of Ether - Blood letting
if there is too much Congestion
not allowing the use of Opium -
Apoplectic Convulsions.
Dr Dewees was the first to apply
Blood letting - It is caused by
Congestion of the heart lungs & brain -
They bear the loss of immense
quantities of blood - Dr Dewees
bled 30, 40 even 70 ℔ at once -
& even repeated it -
The Convulsions dont always
immediately cease, but the

danger from them is taken away—
The Congestion is the main danger
& if not relieved there may be
effusion of blood or Serum—
Ice cold to the head - warmth to
the feet - Sinapisms - Stimulant
injections - Revulsion & depletion
as soon as the Convulsion is gone
off - if the patient can swallow
a little calomel to promote the
secretion & excretion gradually
the relief of the Congestion -
Emetics must not be thought of
until the Congestion of the brain
is relieved - Much can be
expected from blisters which take
time for action - afterwards
cups & leeches - If Congestion
is supposable Empley Arteriotomy
from the temporal artery -
Until the Cause has been asserted to
Opium, Camphor &c are positively
dangerous -

The Congestion is probably produced by excitation of the Cerebral nerves — After relieving the Congestion Opium may sometimes — & antispasmodics & Narcotics sometimes have their place to quiet nervous irritation — The same remarks are applicable to the inhalation of Ether which is admissable when Opium is admissable, Except it is dangerous in the Congestion before bleeding — Moderate Convulsions during pregnancy? Prevent plethora Abstain from nutritious & stimulant diet — Exercise to promote Secretion — Port off the fluids & pl. vil of the superabundant blood — If necessary from symptoms of Congestion, bleed moderately — Antiphlogistic treatment, the last 6 or 8 weeks of pregnancy since the patient ought to be

for a good labor & a good getting up.
If Convulsions occur during the
last month of pregnancy, what
is to be done? Diminish the
predisposing & ranine exciting
causes — Let Gestation alone
Therapeutics has been too much
to interfere with labor. This
multiplies the sources of irritation
& aggravate the existing irritability
of the nervous System —
Convulsions in 1st Stage of labor —
As long as the Os uteri is not dilated
do not interfere with the process of
labor — but Empty the bowel &c —
Convulsions in 2nd Stage of labor
rupture the membranes if the
uterus cannot expel the Child with
facility — assist to artificial delivery —
Dont allow the patient to bear down —
Forceps is preferable than Version
& the only justifiable case for
version is Shoulder presentation

Convulsions after delivery — present & prevent existing Causes physical, mental & moral — & if they come on set on general principles — Pregnancy itself is the predisposing cause —

Uterine Hemorrhage

frequently arises from unusual nervous or some acquired ~~[illegible]~~ organic disturbance of the uterus — more frequently after labor than during the process of labor — May arise from abortion before & premature labor after the 6th month — Placenta when connected with live Ovum if the child dies & when removed dies Ovum if the child lives — The Causes of Uterine Hemorrhage are the same as produce Abortion & premature labor — Predisposing Causes often depend on the state of the general System — Anaemia (asthenia) want of vital strength

Causing a nervous irritable condition
of the general System & little Exciting
Causes then produce Contraction of
the uterus — Anything which
debilitates renders the System more
irritable may produce abortion —
Another opposite Cause is fullness of
habit with great nervous irritability
from whatever Cause & is apt to
occur at the usual period after
menstrual discharge — Also from
the condition of the ovum itself &
also the Embryo & its appendages
which are liable to various affections —
The Exciting Causes are innumerable
irritation mental Corporeal &c —
Diseased physiological & Catabolic
predispose & anything produces abortion —
Virtually an abortion is a labor
with the usual phenomena —
but when very Early the Symptoms
are very slight & often it goes
under the name of dysmenorrhea
Especially in the first month —

Bleeding from Uterus in early
stages of gestation much or little
should be attended to - or the child
may be lost - In abortion more
blood is often lost than in
premature labor, & even in
labor at full term - there is
more blood in the membrana
decidua & tissues of the uterus &c &c
Coagula after coagula & consequent
Exhaustion of the patient -
If it is only organic irritation
there is a pain desire of preserving
the embryo - but not when it is
nervous irritation -
There is no hemorrhage without a
detachment of ovum or membrane
in the early & the placenta in the
latter stages of pregnancy -
There may be profuse hemorrhage
with very little contraction - &
even then the Ovum can often
be presented -

Hemmorhage is arrested often by nature the same as from wounds &c Contraction & retraction of the arteries Coagula forming plugs &c &c
The external Coagula may extend from the vagina through the uterus up to the ruptured bleeding vessels & then the woman may go to full term if there has been but little separation of the tissues
When the ovum has been partly or completely expelled & only there, the contractions of the uterus may close the bleeding vessels & arrest hemorrhage — but when extended by the membranes & liquor amnii it produces hemorrhage —
These Coagula remain & are not absorbed — Sometimes after an apparent relaxation of the os the child may go to full term
In latter period of pregnancy hemorrhage may occur with or without labor from the patulous

orifices of the vessels produced by the separation of the placenta — Occult hemorrhages are frequently seen — & labor must often be brought on to save the patient —

Hemorrhage occurs sometimes from attachment of the inferior part of the uterus & forms over the internal os uteri — & at 8 or 9 month the internal os begins to enlarge & the placenta may be partially separated & produce hemorrhage — but the enlargements are so gradual that women often will not bleed till 7, 8 or even 9 hours ; but whenever labor comes, that moment as the os dilates there is detachment from the placenta & necessarily hemorrhage — ~~Cause~~

In Abortion & most uterine contractions — narcotics & nervine all mental & physical exciting causes — relieve displacements &c &c &c &c —

If there is a strong disposition to abortion, keep the woman in bed till after 4th month for the weight of the viscera may act as exciting causes - milep the patient can be relieved by the pelvis -
When labor commences prevent it by attending to the causes + quiet irritation - by bleeding revulsive remedies &c - then the narcotics - injections of laudanum - &c. also if some uterine pain has been produced - vents by the same means - opiates after evacuation &c when abortion is actually threatened there will be besides pain hemorrhage - much can't be expected from opiates - remove local irritations - if profuse hemorrhage takes place carry the patient safely through the process of abortion which is very slow -
To arrest hemorrhage use

Cold applications inside & outside —
by the tampon & which sometimes
even dames the Embryo — If the
vagina is not distended the
tampon does not newpaints
produce contraction —
To produce relief sometimes give
Ergot to get at the Ovum —
Dr Dewees wire crochet is handy
applicable — a large blunt hook
& even a small lever may be used
to draw down the ovum — or by
abortion forceps — being careful
not to produce any undue
uterine or other irritation —
at full term arrest contraction
resort to the tampon
In extreme cases puncture the mem
branes — If the uterus does not
contract firmly on the child,
Hemorrhage by Cold — by Ergot &c
& the contractions diminish
Remove & if necessary

resent to artificial means to deliver the child—
When found out in 5 or 6 months—
So long as the os is not dilated tampinge avoid anything instant Put the patient in bed & keep her there — If the hemmorhage is profuse resort to the tampon — then can be had no danger of recall hemmorhage — Food diet tonics, stimulants to support the patient. Remove the tampon after a few hours or days & reapply it to promote abruption —
In 2d stage of labor the same measures — tampinge — In threatened case of Simpson — takes out the placenta & leaves the rest to nature — Dr Hodge thinks the same can be done by rupturing the membranes & also give the child a chance — If this is not enough then remove the placenta to save the mother —

In 2nd Stage pass the hand
by the side of the placenta &
bring deliver, is the usual mode
Dr Hodge proves Dr Merriman's method
filling the vagina with a large
tampon, the membranes are
ruptured & the head as it comes
down is supported by the tampon
& the tampon dilates the perineum
& by the time the tampon is
delivered the head is in the
vagina — then apply forceps
& proceed as usual. —

When flatulency comes on let
nature have her course. Except
when pneumatic tinctures &
support the vital powers — Note
in 1st & 2nd Stage of labor. Do not
be in haste to deliver forceps
giving relief pain — when the head
is low down in the pelvis
deliver by the forceps —
When Exhaustion comes with

hemorrhage Continuing the Cases are almost inevitably fatal - There is great danger in the 1st stage - Rupture the membranes & cause Contractions & await the hemorrhage applying Cold & friction outwards - If this dont arrest the perforator Generally makes the os dilatable & deliver by hand - or if necessary by Craniotomy & even delivery through an undilated os uteri - a a faint hope for the life of the mother - If it occur in the 2nd stage deliver by the forceps Even at the risk of apparently hastening death - or even version by the feet -

Hemorrhage may occur in the 3d Stage of labor from inertia of the uterus, placenta being in or out Labor complicated with inertia (a want of action & not a want of power) in the uterus & is Capable of action under the

use of proper Stimuli - Lazy uterus
Causes maybe over distension of
the uterus - Congestion - Simply
the Condition of the nervous System -
Seldom no bad Consequences result
Except from mental Excitement,
during the 1st + 2nd Stages of labor -
the child + mother are both Safe
as long as there is no detachment
of the placenta - In the 3rd Stage
this is different - when the placenta
Separates, blood pours forth from
the ruptured blood vessels - + the
strongest woman has perished in
2, 3, 4 or 5 minutes - Death may
occur with no outward discharge -
from what is Called occult hemorrhage,
the os uteri being closed by the
placenta or Coagula -
The uterus may undergo change in
position or form; the placenta
being attached, traction on the
Cord may invert the uterus -

turning the organ inside out —
+ the intestines may even drop into
the pocket or mouth of the uterus —
It may sometimes occur from
bearing down pains — possibly
from irregular contraction and re-
laxations — but inflammation always be
presupposed — There are different
degrees — sometimes merely depression
of the fundus — incomplete inversion
is where part of the fundus get
outside the cavity, while contract-
ing may fasten on the inverted
fundus + closely keep it there —
This is very dangerous, particularly
from the strangulation —
The patient may recover with
chronic inversion of the uterus
accompanied by profuse menstruations
when it remains outside the body
there are dangers from inflammatory
diseases — In rare cases after
months or years, this inversion

may spontaneously be rectified —
In the 1st stage the treatment is
merely palliative - may amuse the
mind of the patient by a slight
purge or fomend - tepid or cool
bathing, frictions to the abdomen -
In 2nd Stage with fully dilated os -
puncture the membranes, which
will often itself arrest the mictus -
Stimulate the uterus if the presen-
tation & position are favorable -
Sometimes by pressing in the rectum
with the finger during a pain -
Injections of turpentine, Senna,
in green Salt & water in the rectum -
various teas - Gin. brandy -
Spts Camphor - hot or cold douches &c
If these dont answer, Castor
Oyl if advisable - by Secale Cornutum
10, 15, 20, or 30 grs in powder &
infusion will usually induce
powerful Contractions in 15 or
20 minutes, which are long

Continued & frequently return —
If there is anything like disproportion it is not to be thought of nor where there is any disproportion between the Size of the child's head & the size of the pelvis —
Never give Ergot in a first labor —
Danger of the mother suffering — possibly rupture of the uterus.
In medica with loose contraction, apply the forceps —
Inertia in the 3rd Stage —
As soon as the child is born if the uterus is found collapsed stimulate the uterus outwardly — stimulate the os with the finger — if necessary put the hand in the cavity of the uterus & stimulate with the other by friction over the abdomen Injections into the uterus; lemon juice &c — To prevent inertia see the child is not delivered too rapidly — In other cases

pistar the child's head is on the perineum, give a dose of Ergot - Remove all coagula - dont remove the placenta from the uterus immediately if it be adherent - put the hand it but dont deliver until the uterus contracts.

Remove all the Coagula - In cases of inversion - attempt reduction at once - make pressure on the protruded part - & attempt to push it back & follow the uterus by the hand & see all is right & let the hand be delivered by contraction instead of removing it - Spontaneously -

If incomplete & cant be removed Dr. Dewees says make it complete to prevent strangulation -

Apply Ether & attempt even if it takes an hour to return the fundus - or by means of a

peculiar instrument with a piston.

After Labor –

Danger may be by the Cerebro-Spinal & by the Circulatory System

Puerperal Mania –

Displacement may occur-
generally after the 10th day
from relaxation of the ligaments –
They are predisposed to inflammatory
diseases – Full flow of milk is a
Safety Valve from the remains
of the plethoric condition –

Few women have a good setting up
without a full flow of milk to
the breast –

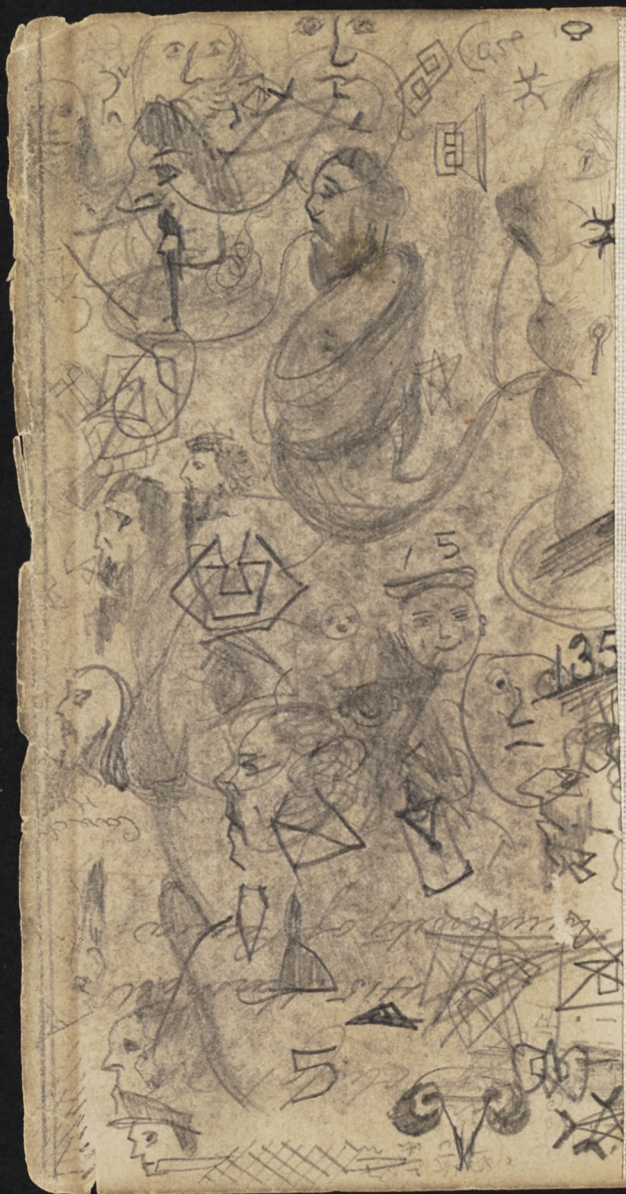
Secure a proper determination to
the flow from the breast – & then
act on general principles –



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